

THE KASCO SYSTEM OF BROODING



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A successful brooding season requires a carefully thought out plan of management for the spring season and the working out of this plan as the season progresses. The purpose of this leaflet is to provide information which may prove helpful in forming and following a schedule of this kind during the first six weeks.

BUYING CHICKS

The breed and variety of the stock you select will depend upon your preference and the market you have available. The poultryman with a small flock for general purposes usually prefers Rhode Island or New Hampshire Reds, Barred or White Plymouth Rocks or one of the other popular dual purpose breeds. In the New England area where brown eggs are ordinarily preferred, the dual purpose breeds have an important advantage.

Where egg production and white shelled eggs are objectives, especially in the New York area, the White Leghorn is generally preferable. Each poultryman must decide for himself which breed and variety is most desirable under his particular circumstances.

BUY EGG LAYING ABILITY

The appearance of chicks when just hatched is no indication of what they will do during their productive life. Egg production is an inherited characteristic and unfortunately there is no way to judge that in the chicks. The only way to be sure of having high producing stock for the coming year is to buy chicks which were hatched from the eggs of high producing breeders. There is no other way. The cost of high quality chicks is greater than for ordinary chicks. Recognized quality always commands a premium. The extra initial cost of the chicks is a small item in comparison with the cost of housing, feeding and managing these birds. It pays to buy quality chicks from a reliable source.

BUY CHICKS ONLY FROM BLOOD TESTED STOCK

The destructive nature of pullorum disease, or bacillary white diarrhea has been demonstrated repeatedly. This disease makes its appearance during the first two weeks of the chick's life and the greatest losses occur usually before the 14th day. This disease can be practically eliminated by buying chicks which were produced from blood tested breeders from which the "positive reactors" or infected hens have been removed. To overlook this

point *may be disastrous* in your brooding program. There is no satisfactory treatment for pullorum disease. Control of the disease lies in prevention. Here are some sound rules to follow:

1. Purchase breeding stock, hatching eggs and baby chicks from flocks where all the breeding stock has been tested for pullorum disease and all birds showing a positive reaction have been removed from the premises.

2. Do not purchase baby chicks hatched from eggs of pullorum-free hens if the eggs were set in an incubator containing eggs from non-tested hens.

3. Do not place eggs from unknown sources in the same incubator with eggs from tested stock. This also applies to turkey, duck and goose eggs.

4. Do not brood chicks from pullorum-free stock with chicks from unknown stock.

5. Blood test all breeders each year and remove the reactors.

6. Burn dead reactors and do not feed offal or raw eggs from diseased birds to healthy chicks or hens.

7. After reactors have been removed, clean and disinfect the houses.

By following those rules which will fit your particular conditions you can practically eliminate the danger of pullorum disease in your chicks.

HOW MANY CHICKS TO BUY

The maximum number of chicks you can brood depends on the housing and equipment available. Do not put too many chicks under one brooder. The risk of chilling, overheating, crowding and disease is too great. Many poultrymen estimate the capacity of their brooders on the basis of chicks one day old, and this is not sufficient after the first few days. Better pullets usually result when not more than 350 chicks are brooded in one group. Each chick should be allowed 6 to 7 square inches of floor space *under the brooder* and not more than 350 day-old chicks should be placed under a hover 52 inches in diameter.

Allow one square foot of floor area in the brooder house for 3 chicks. A brooder house 10' by 12' is suitable for 350 chicks provided the cockerels are removed as soon as they can be detected. With these figures as a basis you can determine the maximum number of chicks you are equipped to brood. If you buy day-old pullets (sexed chicks), get only *one-half* the number of mixed chicks you would buy.

CLEAN BROODER HOUSE

The brooder house may be either a separate building used for brooding purposes only or it may be a unit of the regular laying house temporarily adapted for brooding. In either case the room and equipment should be thoroughly scraped and washed. Dry the room with sunshine and fresh air, then white-wash the room with a mixture of 1 pound of commercial lye (containing 94 per cent of sodium hydroxide) and 2½ pounds of water-slacked lime in 5½ gallons of water. This should be sprayed or brushed on the walls and ceiling.

Wash and disinfect the drinking fountains and feed hoppers at least two weeks before the chicks are to arrive.

ASSEMBLE THE BROODER STOVE

If you already have a good brooder stove get it set up in the brooder house. If you must buy a stove select one which has proven successful for your neighbors. There are many good coal, oil, electric and wood-burning brooders on the market. Select one which is most economical, dependable and easy to operate under your conditions.

Set up the brooder stove and make sure that all the necessary parts are present and in working order. It is especially important to check the thermostat. If the brooder has curtains, these should be washed. If the brooder is a coal-burning type, make sure the pipe extends two or three feet above the highest point of the roof and that there will be no water leaking down the pipe during rainstorms.

The brooder stove should be perfectly level on the floor. If this precaution is not taken the brooder will be warmer on one side.

These preparations should be made *at least two weeks* before the chicks arrive. This is important because any repairs or replacements require time.

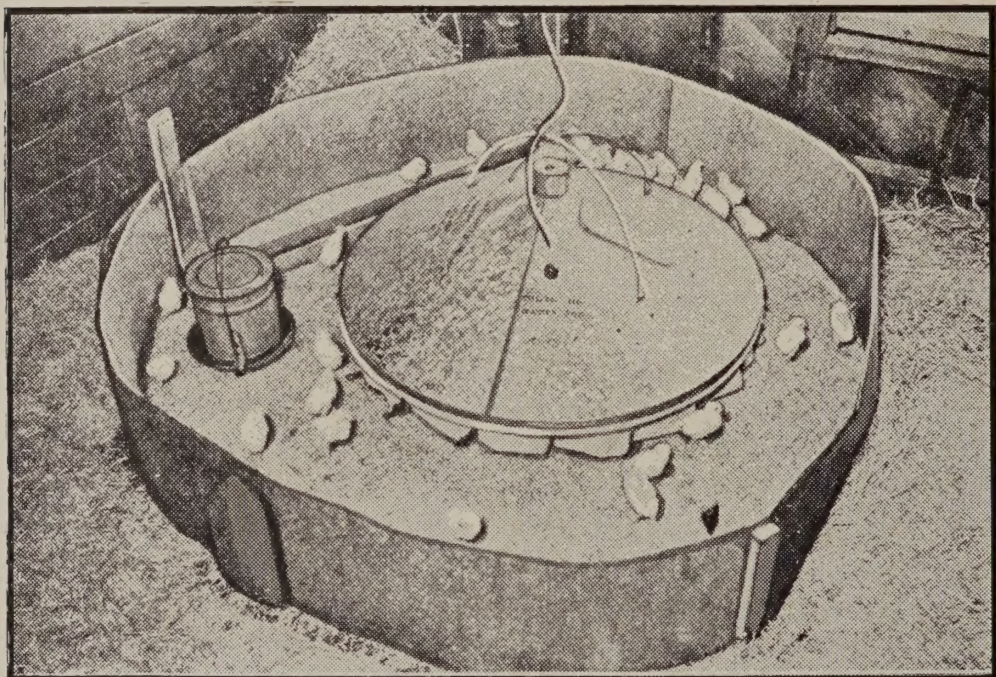
TWO DAYS BEFORE THE CHICKS ARRIVE

Put 1 or 2 inches of litter on the floor. If a litter such as straw is used, it should be cut into short lengths (not over 3 inches). Other types of litter should be broken up and spread out smoothly on the floor. Do not use litter containing chaff or burs.

Place a hover guard about 12 inches high around the hover and about 18 inches from it. This should be made of heavy cardboard or hinged boards or wire covered with paper. It keeps

the chicks from straying too far from the stove and prevents floor drafts. After the chicks are in the brooder this guard may be widened each day and removed entirely on the fourth day.

Corners in the brooder room should be eliminated to prevent crowding. This can easily be done by tacking hardware cloth across the corners. The windows should be shaded to prevent sun spots from appearing on the floor. Chicks usually are attracted to these bright spots and as the spot moves in the room the chicks are apt to be left huddled in a corner and chilling will result.



An electric brooder in operation showing the arrangement of the hover guard, the chick size feed hopper and watering fountain.

Check over the entire pen to be sure that all openings where rats or other rodents might enter the pen, are eliminated. Hardware cloth or tin nailed over such openings will stop any loss from this source. Also nail a 12-inch board across the bottom of the door frame. This will prevent floor drafts.

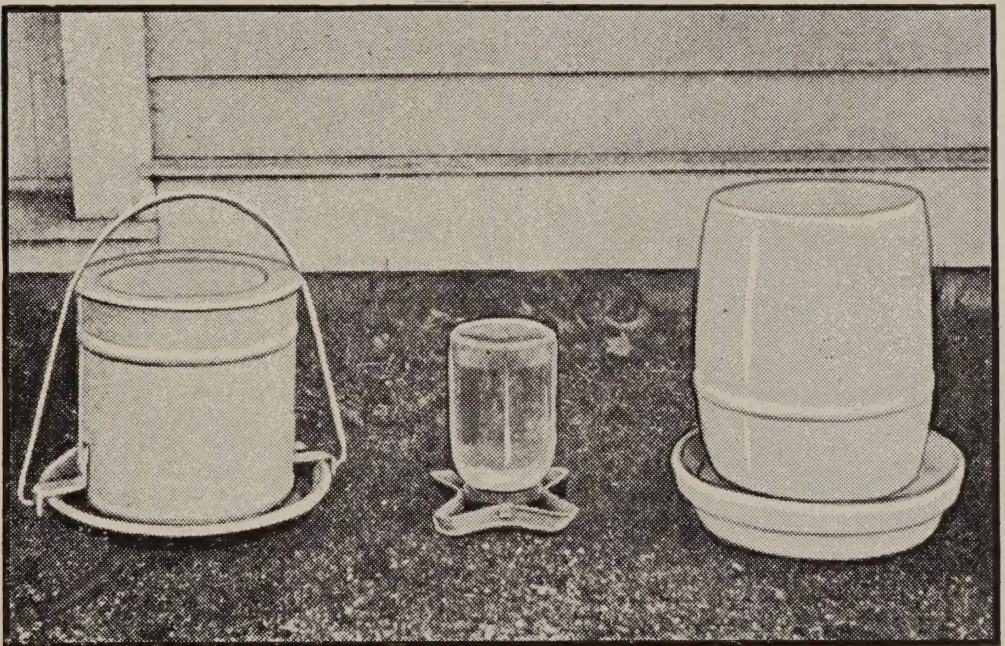
CHECK BROODER STOVE

Now start the brooder stove—at least *two days* before the chicks arrive. Let the stove heat up from 95° to 100° with the bulb of the thermometer one inch from the floor and six inches from the outside edge of the brooder. This will permit the floor and litter to warm up and the stove can be properly adjusted

to the temperature recommended by the manufacturer by the time the chicks arrive. Reduce the brooder temperature five degrees each week. The temperature at which the brooder stove should run will vary with the type of heat used. If *wire screen floors* are used under the brooder the temperature should be *5° higher than the recommended temperature*. It is important to have a good thermometer under the brooder for a guide, but the experienced poultryman can best judge the most desirable temperature by the action of the chicks. If they are too warm they will spread out; if too cool they will crowd around the source of heat. Ordinarily, the chicks should form a circle around the brooder stove and under the outside edge of the hover.

WATER AN IMPORTANT ITEM

Water warmed to 90° and put into clean chick-size automatic watering fountains should be placed on a short flat board inside the hover guard. (The board helps to keep the fountain level.) Allow $\frac{1}{4}$ inch of drinking space per chick. KASCO ALL MASH CHICK STARTER or APEX STARTER should be put in chick-size hoppers and these placed inside the hover guard. Many poultrymen have obtained unusually good results by using KASCO POULTRY FLUSHING MASH as a first day feed for chicks. Allow 1 inch of feeding space per chick (one 4-foot hopper for 100 chicks). Also a little feed should be put into paper plates and these placed at the edge of the hover.



Automatic water fountains should be kept full of clean water.

When the chicks arrive, count them and place them under the brooder. Record the number and the date on your Kasco Brooder Record.

The brooder room should have fresh air without drafts and the temperature should be cool. A hot brooder room encourages cannibalism. Try if possible to keep the room temperature below 65° F.

THE NIGHT CHECK

The most important time to check the brooder stove is at dusk. At this time all the chicks should be comfortably arranged around the brooder stove. It is at this time that baby chicks often have trouble finding their way back to the source of heat.

A final check should be made before retiring to adjust the brooder stove for the night and make any final changes in ventilation.

SIMPLICITY OF THE KASCO SYSTEM OF FEEDING

The general feeding program for the first six weeks is to provide plenty of chick hoppers and keep them well filled with starting mash at all times. When feed is added, put in small amounts each time, but add feed at least three times each day. Keep fresh water in clean fountains before the chicks at all times.

After the first week keep chick-size grit in separate hoppers.

SUPPLEMENTS NOT REQUIRED

KASCO chick starting mashers are designed to completely meet the nutritional requirements of chicks during the first six weeks of life. Succulent greens are not necessary and some forms of green feeds such as lawn clippings may have harmful effects. After ten days the chicks may be turned out on clean range if weather permits.

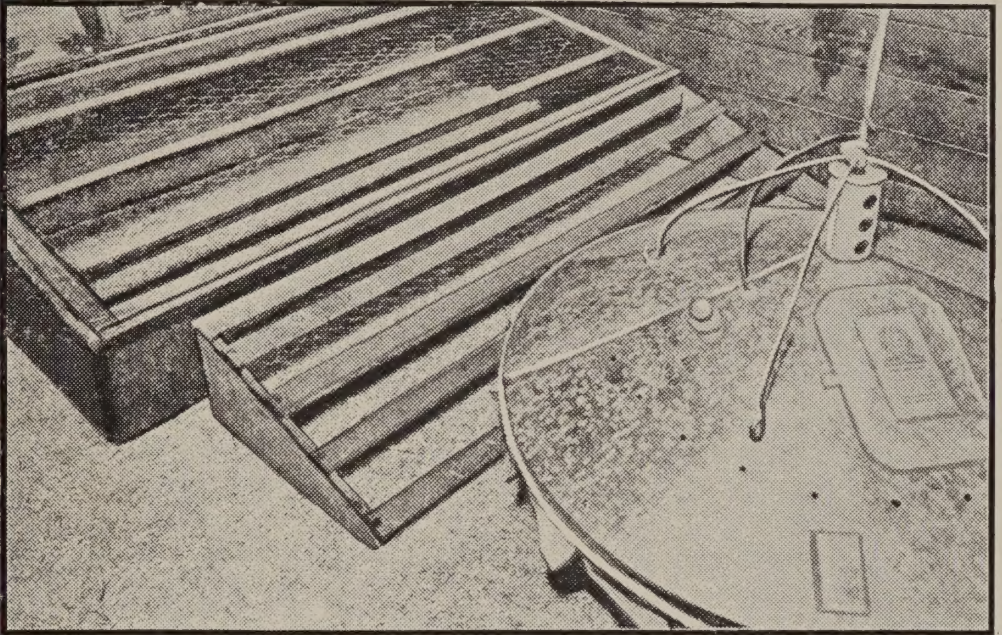
KASCO starting mashers are complete chick feeds and except for water and grit no supplements are necessary for proper rapid growth and development.

A MANAGEMENT SCHEDULE

A systematic plan for visiting the brooder house should be carefully followed. This will assure the chicks of proper attention every day. As a suggestion this schedule for brooder house visits may be 6:00 A. M., noon, 5:00 P. M., at dusk, and 10:00 P. M.

Better results usually result from separating the cockerels from the pullets and this should be done as soon as sex can be distinguished.

The chicks should be taught to roost by the sixth week. This is most easily done by using a force roost which slopes up from the floor. The lower end of this roost should rest just under the edge of the hover. With such an arrangement the chicks learn to roost by themselves.



A force roost at the edge of the hover will help the chicks learn to roost.

COCCIDIOSIS PREVENTION

Coccidiosis is perhaps the most universal and costly disease against which the poultryman must protect himself during the growing period. There is no cure for coccidiosis. There is, however, a preventive and control program which should be followed to *lessen the danger* from this disease.

Coccidiosis is caused by a very small parasite (a coccidium) which can be seen with the aid of a microscope and not by the naked eye. There are several types of this parasite and each variety attacks a different part of the intestine.

The parasite develops into the egg-like form (oocyst) in the intestine of an affected chicken. It is then discharged in the droppings. In the presence of air, warmth and moisture the oocyst develops into the harmful stage and is capable of causing coccidiosis if eaten by susceptible chicks.

Prevention and control of the disease depends on breaking the life cycle of the organism between the time the egg form is expelled from the chick and is again consumed after the necessary incubation period.

KASCO POULTRY FLUSHING MASH stimulates a rapid expulsion of the parasites from the intestinal tract which helps prevent and control coccidiosis *provided this treatment is followed immediately by a thorough cleaning of the premises*. This removes the oocysts from the house before they develop to the damaging stage. KASCO POULTRY FLUSHING MASH will cause the chicks to expel large numbers of coccidia if they are present. For each 100 chicks, feed the following amounts of KASCO POULTRY FLUSHING MASH—

2 weeks of age	4 weeks of age	6 weeks of age	8 weeks of age	10 weeks of age
6 lbs.	12 lbs.	18 lbs.	24 lbs.	30 lbs.

After 10 weeks, feed KASCO POULTRY FLUSHING MASH once each month at the rate of 40 lbs. per 100 birds. This is the prevention schedule.

Do not give the chicks any supplementary feeds until these amounts are consumed. Clean the litter *daily* while the flush is effective and spray the floor and equipment with an effective disinfectant such as Toxite. During the flush the chicks will require more heat, therefore the brooder temperatures must be raised 5 *degrees*.

The prevention measures for coccidiosis may be summarized in three management steps—

1. Flush the chicks with KASCO POULTRY FLUSHING MASH.
2. Remove the droppings daily during the flush and spray the floor and equipment with an effective disinfectant such as Toxite.
3. Raise the brooder temperature 5 degrees during the flush.

In the event that an outbreak of coccidiosis makes its appearance in your flock, ask your dealer to have a Kasco Service Man call immediately.

Ask your dealer for the new Kasco Brooder Record.

KASCO MILLS, INC.

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